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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,606	12/30/2003	Shane Y. Hong	AP33951-I	8655

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EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,606

Applicant(s)

HONG, SHANE Y.

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19,21, and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "The method" lacks antecedent basis. In claim 20, "the band" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-25, 28-38 are rejected under 35 U.S.C. 102(are) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brown US 3,526,395. Brown

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discloses a slag cutting apparatus. The apparatus comprises the claimed heat source (23), carriage assembly (11), a linear rail assembly deemed as bar 17 which the carriage assembly is mounted on, a motor (22), and reference brackets (14,18) mounted on rail assembly (11) is mounted as shown in figure 2.

Applicant is reminded that the claims are not directed to the "use" of any device but the claims are directed to the device per se. Accordingly, the claimed structural limitations must be compared the structural limitations of the prior art device. See *In re Schreiber* F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. 1997).

As such Brown's device is deemed to meet the claimed structural limitations provided by instant claim 8.

Alternatively, in view that the claimed structural limitations are met by Brown's device, Brown's device is deemed as being capable of performing the claimed intended use of melting material of a planar panel.

As for claim 19-20, in figure 2 the torches 23 are shown to be linear providing a thin flame in order to the slag.

As for claim 21 and 23, the carriage assembly moves in a direction not parallel to the length of the heat source and parallel to the rail assembly.

As for claim 22, the heat sources may be moved in a direction parallel to the heat source, up and down, by adjusting the height of the brackets (14,18).

As for claim 24-25, heat source would be expected to have a fuel mixture and nozzle to provide flame of at least 1mm in width in order to effectively cut the slag.

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As for claim 28, the torches 23 are deemed as diffusion torches because the supplied fuel and oxygen from lines 25 are mixed within a channel of the torches.

As for claim 29, it is obvious to one of ordinary skill in the art the temperature of the torch is controlled by the amount of fuel is being supplied.

As for claims 30-31, while Brown is silent disclosing the control mechanism of the apparatus, it is clear to one of ordinary skill in the art the it can be controlled using a computer, or a human operator.

As for claim 32, it is obvious to a person of ordinary skill in the art that the claimed parameters have an effect on the heating of the slag. Hence a control of any one of these parameters would have an effect on the cutting of the slag.

As for claims 33-38, the apparatus of Brown is capable of providing the claimed working conditions. As noted above the claimed invention is drawn to a device per se, not the "use" of a device, for which applicant's limitation are drawn to.

Claims 18-21, 23-4, 28-38 are rejected under 35 U.S.C. 102(are) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kanamori et al (US 5,211,730). Kanamori discloses a fire polishing apparatus. The apparatus comprises the claimed heat source (13), carriage assembly mounted on a, a linear rail assembly as shown in figure 1. A motor assembly would is an inherent device in Kanamori's apparatus in order to move the carriage assembly. Additionally, the claimed reference brackets are those holding chucks 11 and 12 that are mounted on the rail assembly as shown in figure 2.

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Applicant is reminded that the claims are not directed to the "use" of any device but the claims are directed to the device per se. Accordingly, the claimed structural limitations must be compared the structural limitations of the prior art device. See *In re Schreiber* F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. 1997).

As such Kanamori's apparatus is deemed to meet the claimed structural limitations provided by instant claim 18.

Alternatively, in view that the claimed structural limitations are met by Kanamori's apparatus, Kanamori's device is deemed as being capable of performing the claimed intended use of melting material of a planar panel.

As for claim 19-20, in figure 3 the heat source¹³ is shown to be linear providing a thin flame to fire polish the glass.

As for claim 21 and 23, the carriage assembly moves in a direction not parallel to the length of the heat source and parallel to the rail assembly.

As for claim 24-25, heat source would be expected to have a fuel mixture and nozzle to provide flame of at least 1mm in width in order to effectively fire polish the glass preform.

As for claim 29 and 32-38, as noted in the examples of Kanamori, the claimed parameters have an affect on the way the glass preform is fire-polished. Hence, control of the claimed parameters would be necessary to provide an effective fire polishing of the glass preform.

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As for claims 30-31, while Kanamori is silent disclosing the control mechanism of the apparatus, it is clear to one of ordinary skill in the art the it can be controlled using a computer, or a human operator.

Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanamori et al (US 5,211,730) in view of Cain et al (US 5,599,371). Kanamori is silent disclosing the type of burner being used. However, the claimed diffusion burner having a linear array of multiplicity tubes alternatively delivering oxygen and fuel is disclosed by Cain provides for a high precision burner (Col 2, lines 20-28 and Fig. 3-5).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have provided a Cain's burner into Kanamori's apparatus in order to effectively fire polish the glass preform.

As for claim 27, the tip of Cain's burner would be expected to be made of high temperature resistant material such as the claimed ceramic in order withstand the high temperature created by the burner itself.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art not used in the above prior art rejections have been cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a stylized 'L' followed by a 'Z'.

CL